

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Uwe Marx et al.
Serial No: 10/622,502
Filing Date: July 18, 2003
Title: Method and device for cultivating at high densities and for obtaining
of products from these cells
Examiner: Law Office:

January 6, 2004

Attorney's docket No.: Weh212ID

**SUBMISSION TO THE INFORMATION DISCLOSURE
STATEMENT UNDER 37 CFR § 1.97.**

Hon. Commissioner of Patents and Trademarks
Washington, D.C. 20231

SIR:

Applicants are respectfully submitting the references cited in the
Application:

-US 3,821,087

-US 4,804,628

-US 4,857,464

-DE 34 09 501

-DE 24 31 450

-DE 42 30 194

-DE 195 20 188

-Knazek R.A."Solid tissue masses formed in vitro formed cells
cultured on artificial capillaries" Federation Proc. 33 (8): pp. 1978-1981
(1974)

-Piret J. M., Cooney C.L. "Immobilized mammalian cell cultivation in hollow fiber bio-reactors" Biotechnol. Adv. 8: 763-783 (1990)

-Lipman N.S., Jackson L.R. "Hollow fibre bioreactors: an alternative to murine ascites for small scale (<1 gram) monoclonal antibody production" Res Immunol July-August; 149(6): 571-6 (1998)

-Flores H.E., Hoy M.W., Pickard J.J. "Secondary metabolites from root cultures" Tibtech. 5:64-69 (1987)

-Liu C.Z., Wang Y.C., Zhao B., Guo C., Ouyang F., Ye H.C., Li G.F. "Development of a nutrient mist bioreactor for growth of hairy roots" In Vitro Cell Dev Biol- Plant May-June; 35:271-74 (1999)

-Wyslouzil B.E., Whipple M., Chatterjee C., Walcerz D.B. Weathers P.J., Hart D.P. "Mist deposition onto hairy root cultures: aerosol modeling and experiments" Biotechnol Prog. March-April; 13(2): 185-94 (1997)

-Friberg J.A., Weathers P.J., Gibson D.G. "Culture of amebocytes in a nutrient mist bioreactor" In Vitro Cell Dev Biol. March: 28A(3 Pt 1): 215-7 (1992).

Applicants also enclose the references cited in the Office Action issued by the German Patent Office.

Copies of the following references cited in the German Office Action are enclosed herewith:

-US 4,225,671

-US 4,857,464

-US 5,416,022

-DE 34 09 501

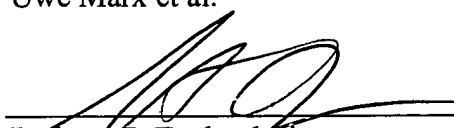


-DE 41 16 727
-DE 295 20 294
-EP 0 359 900
-WO 89/11529
-WO 01/04262

The above recited references taken alone or in combination are
believed to neither anticipate nor to render obvious the present application.

Respectfully submitted,
Uwe Marx et al.

By:


Robert J. Ferb, their attorney
13 Forest Drive, Warren, N.J. 07059
Telephone No:(908)757-2839
Telefax No:(908)668-5262
Reg.No. 29,536, Docket No: WEH212

*/am



Documents cited in Application US-Ser.-No. 10/622,502:

U.S. Patent Documents					
Document Number	Date	Name	Class	Sub Class	Filing date
3,821,087	06/28/74	Knazek	195	127	05/18/72
4,804,628	02/14/89	Cracauer	435	240	08/19/87
4,857,464	08/15/89	Weathers	435	240	02/21/86
Foreign Patent Documents					
Document Number	Filing date	Country	Publ. date	Class	Translation
DE 34 09 501 A1	03/15/84	Germany	10/24/85	C12N5/02	Abstract
DE 24 31 450 A1	07/01/74	Germany	01/23/75	C12K9/00	US 3,997,396
DE 42 30 194 A1	09/09/92	Germany	03/10/94	C12M3/00	US 5,516,691
DE 195 20 188 A1	06/01/95	Germany	12/05/96	D01F1/08	US 5,980,795
Other Documents					
Knazek R.A. "Solid tissue masses formed in vitro formed cells cultured on artificial capillaries" Federation Proc. 33 (8): pp. 1978 – 1981 (1974)					
Piret J.M., Cooney C.L. "Immobilized mammalian cell cultivation in hollow fiber bio-reactors" Biotechnol. Adv. 8: 763-783 (1990)					
Lipman N.S., Jackson L.R. "Hollow fibre bioreactors: an alternative to murine ascites for small scale (<1gram) monoclonal antibody production" Res Immunol Jul-Aug; 149(6): 571-6 (1998)					
Flores H.E., Hoy M.W., Pickard J.J. "Secondary metabolites from root cultures" Tibtech. 5:64-69 (1987)					
Liu C.Z., Wang Y.C., Zhao B., Guo C., Ouyang F., Ye H.C., Li G.F. "Development of a nutrient mist bioreactor for growth of hairy roots" In Vitro Cell Dev Biol- Plant May-June; 35:271-74 (1999)					
Wyslouzil B.E., Whipple M., Chatterjee C., Walcerz D.B., Weathers P.J., Hart D.P. "Mist deposition onto hairy root cultures: aerosol modeling and experiments" Biotechnol Prog. Mar-Apr;13(2):185-94 (1997)					
Friberg J.A., Weathers P.J., Gibson D.G. "Culture of amebocytes in a nutrient mist bioreactor" In Vitro Cell Dev Biol. Mar;28A(3 Pt 1):215-7 (1992)					



Documents cited in first Office action by the German Patent Office:

U.S. Patent Documents					
Document Number	Date	Name	Class	Sub Class	Filing date
4,225,671	09/30/80	Puchinger	435	71	06/09/78
4,857,464	08/15/89	Weathers	435	240	02/21/86
5,416,022	05/16/95	Amiot	435	284	10/29/93
Foreign Patent Documents					
Document Number	Filing date	Country	Publ. date	Class	Translation
DE 34 09 501 A1	03/15/84	Germany	10/24/85	C12N5/02	Abstract
DE 41 16 727 C2	05/17/91	Germany	11/19/92	C12N5/08	US 6,225,106 US 6,306,644
DE 295 20 294 U1	12/21/95	Germany	03/21/96	C12M1/00	US 6,168,949
EP 0 359 900 A2	03/30/89	EP	03/28/90	C12P1/00	US 4,952,127
WO 89/11529 A1	05/19/89	WO	11/30/89	C12N5/00	
WO 01/04262 A2	07/05/00	WO	01/18/01	C12M	Abstract